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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/004,271	01/07/1998	KAZAUMICHI SHIMADA	Q48630	1031

7590

11/25/2002

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WASHINGTON, DC 200373202

EXAMINER

NGHIEM, MICHAEL P

ART UNIT	PAPER NUMBER
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2863

DATE MAILED: 11/25/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/004,271

Applicant(s)

SHIMADA ET AL.

Examiner

Michael P Nghiem

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 September 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 16-24,27 and 29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 16-18,20-24,27 and 29 is/are rejected.
- 7) ☒ Claim(s) 19 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 09/628,348.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 15.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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DETAILED ACTION

The Amendment filed on September 5, 2002 has been acknowledged.

Withdrawal of Allowability

1. The indicated allowability of claims 21-23 are withdrawn in view of the newly discovered reference(s) to Yuji et al. (EP 627 323) and Toshimitsu et al. (EP 532 302). Rejections based on the newly cited reference(s) follow.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 16-18, 20, 21, 24, 27, and 29 are rejected under 35 U.S.C. 102(b) as being anticipated by Toshimitsu et al. (EP 532 302).

Toshimitsu et al. discloses all the claimed features of the invention including:

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- an ink cartridge (9) which is used for an ink-jet recording apparatus (Fig. 4), comprising:

- a plurality of ink storage chambers (9-1's, 9-2's), wherein a first chamber (9-1C) of said ink storage chambers storing a light cyan ink (Fig. 4), a second chamber (9-2C) of said ink storage chambers storing a deep cyan ink (Fig. 4), a third chamber (9-1M) of said ink storage chambers storing a light magenta ink (Fig. 4), a fourth chamber (9-2M) of said ink storage chambers storing a deep magenta ink (Fig. 4) and a fifth chamber (9-1Y, 9-2Y) of said ink storage chambers storing a yellow ink (Fig. 4); and wherein the ink storage chambers are accommodated integrally in the ink cartridge (page 4, lines 14-19, Fig. 4);

- each ink storage chamber has an ink supply port (ports between heads and reservoir, page 4, lines 14-19), and all ink supply ports are aligned on one straight line (Fig. 4);

- the yellow ink is stored in the ink storage chamber located at the most end side of the ink storage chambers (Fig. 4);

- the light cyan ink, deep cyan ink, light magenta ink, deep magenta ink and yellow ink are stored in such a manner that similar colors are adjacent to each other (Fig. 4);

- the ink storage chambers are arranged in an order of storing the light cyan ink, deep cyan ink, light magenta ink, deep magenta ink and yellow ink in a horizontal direction (Fig. 4);

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- different colors of the five different colors are adjacent to each other; and wherein the ink storage chambers are arranged in an order of storing light cyan ink, deep cyan ink, light magenta ink, deep magenta ink and yellow ink in a horizontal direction (Fig. 4);

- the ink storage chambers storing the deep cyan ink and light cyan ink are adjacent and the ink storage chambers storing the deep magenta ink and the light magenta ink are adjacent (Fig. 4).

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 16, 18, 20, 22, 23, and 29 are rejected under 35 U.S.C. 102(a) as being anticipated by Yuji et al. (EP 627 323).

Yuji et al. discloses all the claimed features of the invention including:

- an ink cartridge (Figs. 15-17) which is used for an ink-Jet recording apparatus (Fig. 5), comprising:

- a plurality of ink storage chambers (160's), wherein a first chamber (upper 160C) of said ink storage chambers storing a light cyan ink (Fig. 16), a second chamber (lower 160C) of said ink storage chambers storing a deep cyan ink (Fig. 16), a third chamber (upper 160M) of said ink storage chambers storing a light magenta ink (Fig.

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16), a fourth chamber (lower 160M) of said ink storage chambers storing a deep magenta ink (Fig. 16) and a fifth chamber (upper 160Y) of said ink storage chambers storing a yellow ink (Fig. 16); and wherein the ink storage chambers are accommodated integrally in the ink cartridge (160's are integrated with 150, 151, 152);

- the yellow ink is stored in the ink storage chamber located at the most end side of the ink storage chambers (Fig. 16);

- the light cyan ink, deep cyan ink, light magenta ink, deep magenta ink and yellow ink are stored in such a manner that similar colors are adjacent to each other (Fig. 16);

- said ink cartridge storing ink of a plurality of colors to be supplied to the ink-Jet recording apparatus which has an ink-jet recording head (Figs. 15, 17) for ejecting the ink and a plurality of ink supply needles (65, 66) for supplying the ink to the recording head, adjacent ones of said ink supply needles being arranged to have height difference therebetween (Fig. 16);

- all of said ink supply ports are arranged in one horizontal plain (Fig. 16);

- the ink storage chambers storing the deep cyan ink and light cyan ink are adjacent and the ink storage chambers storing the deep magenta ink and the light magenta ink are adjacent (Fig. 16).

Allowable Subject Matter

4. Claim 19 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Reasons For Allowance

5. The combination as claimed wherein the partitioning walls are formed so that a thickness of the partitioning walls increases along the direction for ink supply ports of each ink storage chambers (claim 19) is not disclosed, suggested, or made obvious by the prior art of record.

Response to Arguments

6. Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

Contact Information

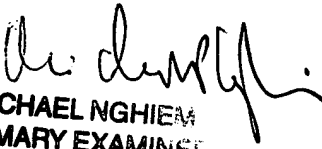
7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Nghiem whose telephone number is (703)

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306-3445. The examiner can normally be reached on M-H from 6:30AM – 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached at (703) 308-3126. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7724 for regular communications and (703) 308-5841 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



MICHAEL NGHIEM
PRIMARY EXAMINER

Michael Nghiem

November 22, 2002